What is Claimed:

- 1. In a photosensitive black matrix composition comprising a polymer binder, a pigment, and a dye dissolved or dispersed in a solvent system, the improvement being that said dye comprises an azo-metal complex dye.
- 2. The composition of claim 1, wherein said azo-metal complex dye is an azo-1,2-chrome complex dye.
- 3. The composition of claim 1, wherein said dye is present in said composition at a level of from 0.2-3.0 wt. %, based upon the total weight of pigment solids taken as 100% by weight.
- 4. The composition of claim 1, wherein said pigment comprises a silica-coated metal oxide.
- 5. The composition of claim 1, said composition further comprising a coupling agent.
- 6. The composition of claim 5, wherein said coupling agent is a trialkoxyorganosilane coupling agent.
- 7. The composition of claim 5, wherein said coupling agent is present in said composition at a level of about 5 wt. %, based upon the total weight of the pigment solids taken as 100% by weight.
 - 8. The composition of claim 1, wherein said polymer binder is alkali-soluble.
- 9. The composition of claim 1, said composition further comprising a photopolymerizable polyfunctional acrylate or methacrylate monomer or mixture of monomers, with each monomer having one or more ethylenically unsaturated double bond per molecule.

- 10. The composition of claim 1, said composition further comprising a free-radical generating photoinitiator capable of operating effectively at exposure wavelengths of less than 400 nm.
- 11. The composition of claim 10, wherein said photoinitiator comprises an amine-substituted acetophenone combined with thioxanthone and octyl *N,N*-dimethylaminobenzoate.
- 12. The composition of claim 4, wherein said pigment comprises a metal oxide selected from the group consisting of copper oxides, manganese oxides, cobalt oxides, nickel oxides, chromium oxides, iron oxides, and mixtures thereof.
- 13. The composition of claim 1, wherein said dye is selected from the group consisting of Solvent Black 27, Solvent Black 28, Solvent Black 29, and Solvent Black 45.
- 14. The composition of claim 13, wherein said dye is Solvent Black 28 and is present in the composition at a level of 1 wt. %, based upon the total weight of the pigment solids taken as 100% by weight.
- 15. The composition of claim 1, wherein said composition, when formed into a film having a thickness of 1 micron or less and cured, has a volume resistivity of greater than 10⁸ ohm-cm and an optical density of greater than 3.0.
- 16. The composition of claim 4, wherein said pigment has a primary particle size sufficient to allow filtration at resolutions small than 1 micron.
- 17. The composition of claim 16, wherein said pigment particle size is from 0.01-0.02 micron, and at least 50 wt. % of the pigment particles have a primary particle size of less than 0.02 microns.

- 18. The composition of claim 4, wherein said silica-coated metal oxide pigment is Pigment Black 26.
- 19. The combination of a substrate having a surface and the composition of claim 1 applied to said substrate surface.
 - 20. The combination of claim 19, wherein said substrate comprises glass.
- 21. The combination of claim 19, wherein said composition comprises a cured film on said substrate.
- 22. The combination of claim 21, wherein said film has a thickness of 1 micron or less, a volume resistivity of greater than 10⁸ ohm-cm, and an optical density of greater than 3.0.
- 23. The combination of claim 19, wherein said azo-metal complex dye is an azo-1,2-chrome complex dye.
- 24. In a photosensitive black matrix composition comprising a polymer binder dissolved or dispersed in a solvent system, the improvement being that said composition further comprises an azo-metal complex dye, a coupling agent, and a metal oxide pigment.
- 25. The composition of claim 24, wherein said coupling agent is a trialkoxyorganosilane coupling agent.
- 26. The composition of claim 24, wherein said pigment comprises silica-coated metal oxide pigment.
- 27. The composition of claim 25, wherein said pigment comprises silica-coated metal oxide pigment.

- 28. The composition of claim 24, wherein said azo-metal complex dye is present in said composition at a level of 0.2-3.0 wt. %, based upon the total weight of the pigment solids taken as 100% by weight.
- 29. The composition of claim 24, wherein said azo-metal complex dye is an azo-1,2-chrome complex dye.
- 30. The combination of a substrate having a surface and the composition of claim 50 applied to said substrate surface.
 - 31. The combination of claim 30, wherein said substrate comprises glass.
- 32. The combination of claim 30, wherein said composition comprises a cured film on said substrate.
- 33. The combination of claim 32, wherein said film has a thickness of 1 micron or less, a volume resistivity of greater than 10⁸ ohm-cm, and an optical density of greater than 3.0.
- 34. The combination of claim 30, wherein said azo-metal complex dye is an azo-1,2-chrome complex dye.
 - 35. A method of forming a photosensitive black matrix comprising the steps of:
 applying a quantity of the composition of claim 1 to a substrate so as to
 form a film thereon;

baking said film; exposing said baked film to energy; developing said exposed film; and curing said exposed film.

- 36. The method of claim 35, wherein said exposing step comprises exposing said film at 200-2000 mJ/cm² of energy.
 - 37. A method of forming a photosensitive black matrix comprising the steps of:

 applying a quantity of the composition of claim 24 to a substrate so as to

 form a film thereon;

baking said film; exposing said baked film to energy; developing said exposed film; and curing said exposed film.

38. The method of claim 37, wherein said exposing step comprises exposing said film at 200-2000 mJ/cm² of energy.